Harumi OCHI*: **Notes on moss flora (IX)****

越智春美*: セン類覚えがき (IX)**

99. **Entosthodon Wichurae** Fleisch., Musci Fl. Buitenzorg **2**: 481 (1904); Ochi, Jap. Journ. Bot. **20**(1): 21, f. 10 (1968). (Fig. 56)

Brachymenium Cagnii Negri, Annali Bot. **7**: 167 (1908), *syn. nov.*

Specimen examined. Uganda. Mts. Ruwenzori, prope Bujungolo, 3800 m, s. nom. leg. et num.—holotype of *Bracymenium Cagnii* (FI).

The type material of *B. Cagnii* agrees very well with *E. Wichurae* in both gametophyte and sporophyte characters. The present moss has hitherto been known to occur in S and SE Asia (Ochi, 1968a), and is recorded from Africa for the first time.

100. **Bryum pachytheca** C. Muell., Syn. 1: 307 (1848); Ochi, Hikobia **6**(3-4): 217 (1973). (Fig. 57)

Bryum rugicollum Bartr., Lloidia **5**: 262, f. 18 (1942), *syn. nov.* *Bryum novo-guinense* Bartr., l. c.: 263, f. 19, *syn. nov.*

Specimens examined. New Guinea. Territory of New Guinea (former Dutch New Guinea): Mt. Wilhelmina, alt. 3400-4000 m, on wet sandstone, or tree on edge of water fall, or wet clay slopes, or wet limestone near water fall. Coll. L. J. Brass & E. Myer-Dress, 28 Sept. 1938. Nos. 9691, 9725, 9881, 10005, 10369-a, 10404, 10421, 10422—holotype of *B. rugicollum* (all in FH); ditto, alpine grassland, sandy banks of stream, 3800 m, L. J. Brass & E. Myer-Dress, Sept. 1938. No. 10164a—holotype of *B. novo-guinense* (FH).

The plants of the specimens cited above vary very much in size of gametophytes and sporophytes, and are mostly robuster with larger leaves and capsules than in the Australian plants hitherto examined (Ochi, 1970). But, some plants as in Nos. 9691 and 10005 cited above are small in size with small capsules and short and slender setae; these small forms appear to be of more xeric habitats, and they are quite similar to some of the Australian plants in every respect.

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** Continued from Journ. Jap. Bot. **46**(4): 117-126, *f. 50-55* (1971).

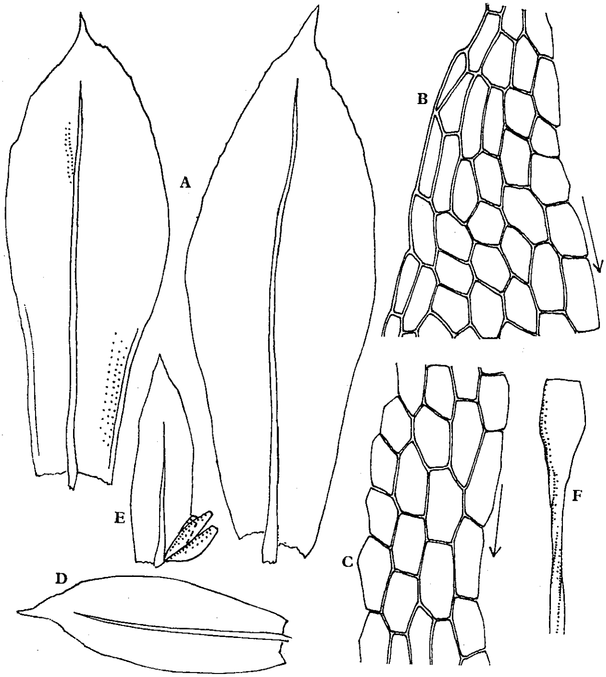

Fig. 56. *Entosthodon Wichurae* Fleisch.: A. Leaves, ×22. B. Upper margin of leaf, ×96. C. Median lamina cells, ×96. D. Leaf of lateral male branch, ×22. E. Perigonial leaf with antheridia, ×22. F. Capsule, ×11. Drawn from type of *Brachymenium Cagnii* (FI).

101. **Bryum cellulare** Hook. in Schwaegr., Spec. Musc. Suppl. **3**(1) : 9, f. 214a (1827).

Bryum siculum G. Roth in Zodda, Annali Bot. **6** : 254, f. 2 (1909).—*Bryum cellulare* var. *siculum* (Roth) Podp., Consp. 405 (1954), *syn. nov.*

Specimen examined. Italy. Cicilia : Messina, in humidis montis mendonics, Coll. G. Zodda, XI 1905, s. num.—holotype of *B. siculum* (FI).

Examining the above-cited material in detail, *B. siculum* can not be distinguished as a distinct taxon from *B. cellulare*. It is commonly known among bryologists in the world now that *B. cellulare* occurs in the East Mediterranean region. Occurrence of this species there is actually proved by the present study, although this species should not be considered as one of the paleotropical element but one of pantropical one (Ochi, 1974).

102. **Bryum apiculatum** Schwaegr., Spec. Musc. Suppl. 1(2): 102, f. 72 (1816).

Bryum nitens Hook., Icon. Pl. 1: 19 f. 6 (1836); Ochi, Journ. Fac. Educ. Tottori Univ. Nat. Sc. 25(1-2): 38 (1974), *syn. nov.*—*Bryum Brassii* Bartr., Brittonia 9: 39 (1957), *syn. nov.*

Specimens examined. "In America meridionali lectum, ni fallor, Richardus dedit."—holotype of *B. apiculatum* (G). Papua New Guinea. Papua: Milne Bay Distr., stream in forest, alt. 1600 m, Goodenough I., E slopes. Coll. L. J. Brass, 21. Oct. 1953. No. 24872—holotype of *B. Brassii* (FH).

Several New World species were reduced to synonyms of *B. nitens*, an "Old World" moss (Ochi, 1974). Examining the South and Central American species in the subfamily Bryoideae, however, it was proved that *B. nitens* was conspecific with *B. apiculatum*, a New World species.

The moss called *B. Brassii* is larger, less lustrous plants than the typical phase of *B. apiculatum*, having the leaves with a little longer-excurrent costa and lax areolation. As stated and illustrated previously (Ochi, 1972, 1974, etc. as *B. nitens*), *B. apiculatum* varies very much in robustness of plants, size, shape, color and areolation of the leaves. The plants named *B. Brassii* seem nothing but a form of *B. apiculatum*, since such a form still falls within the range of variation of a single species. For further comments on the distributional range of this species, see Ochi (1974).

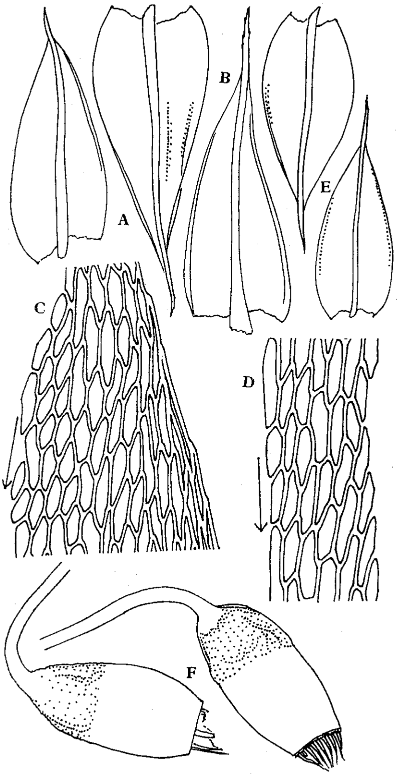

Fig. 57. *Bryum pachytheca* C. Muell.: A and B. Leaves, ×22. C. Upper margin of leaf, ×96. D. Median lamina cells, ×96. E. Innovation leaves, ×22. F. Capsules, ×11. Drawn from type of *Bryum rugicollum* (FH).

103. **Bryum australe** Hamp., Icon. Musc. 26 (1844).

Bryum perrevolutum Bartr., Bryologist **48**: 114 (1845), *syn. nov.*

Specimen examined. Papua New Guinea. Territory of New Guinea, Rawlinson Range, elev. 7000-12000 ft., Morobe Distr. Coll. M.S. Clemens, 15-22 July 1941. No. 12445B5—holotype of *B. perrevolutum* (FH).

Only very juvenile capsules were observed in the type material of *B. perrevolutum*. But the gametophytes agree very well with those of Australasian *B. australe* in every respect (Ochi, 1970), and the juvenile capsules are relatively short-oval also as in that species. This species is recorded from New Guinea for the first time.

104. **Bryum radiculosum** Brid., Spec. Musc. **3**: 18 (1817); Ochi, Journ. Fac. Educ. Tottori Univ. Nat. Sc. **23**(1): 54, f. 36 (1972).

Bryum Chungii Bartr., Ann. Bryol. **8**: 11, f. 5 (1935), *syn. nov.*

Specimens examined. China. Prov. Fukien: On mossy shady rock, alt. 500 m, Nantai near Foochow. Coll. H.H. Chung, Mar. 1930. Nos. 6022—syntype of *B. Chungii* (FH); 6022a—syntype of ditto (FH).

The above-cited material agrees very well with the plants called *B. Mayebarae* in Japan, which was reduced to a synonym of *B. radiculosum* (Ochi, 1968b). Occurrence of the present moss in China may be rather natural, judging from the widespread distribution and probably weedy nature of it (Crundwell & Nyholm, 1964; Ochi, 1973).

105. **Bryum robustum** Hamp., Linnaea **28**: 205 (1856).

Bryum crassulum Bartr., Brittonia **9**: 39 (1957), *syn. nov.*

Specimen examined. Papua New Guinea. Territory of Papua: Milne Bay Distr., on wet rocks, stream in forest, alt. 1600 m, Goodenough I., E slopes. Coll. L.J. Brass, 11 Nov. 1953. No. 24611—holotype of *B. crassulum* (FH).

Known to occur in tropical or subtropical regions of Australia and Africa (Ochi, 1970, 1972), and it is recorded from New Guinea for the first time.

106. **Bryum russulum** Broth. et Geh., Oefv. Finsk. Vet. Foerh. **40**: 175 (1898); Ochi, Journ. Jap. Bot. **46**(4): 124, f. 55 (1971).

Specimens examined. Papua New Guinea. Territory of New Guinea: W Highland Distr., Wabag area, W slopes of Mt. Hagen, Lower Lai Valley. Coll. R.G. Robbins, 23 July 1960. No. 2689 (FH); Morobe Distr., Kaindi, alt. 2150 m, on a log in *Nothofagus* forest. Coll. L.J. Brass, 21 May 1959, No.

29703; ditto, Edie Creek Road, Wau, 6000 ft., Coll. Womersley, Hoogland & Taylor, 26 Mar. 1953. No. 39233 (FH); all det. as *B. crassulum* by Bartram.

The above-cited materials were misnamed by Bartram. In *B. russulum*, the plants are robust and the leaves are larger, reflexed or narrow-revolute only in the lower part, with a distinct border consisting of 4-5 rows of narrower but not far longer cells. But, in *B. crassulum* (=*B. robustum*), the plants are smaller, and the leaves are smaller, much more revolute in the median to lower parts, with the border consisting of some 3 rows of far thick-walled, narrower cells. Thus, these two are never confused specifically with each other.

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今回は，アフリカのルウェンゾリ山産のもの1，イタリーのシシリー島産のもの1，中国の福建省産のもの1，ニューギニア産のもの5，計8種の正体を明らかにした。

これらは，いずれも，カサゴケ科の種類として報告記載されたが，そのうち，ルウェンゾリ産の *Brachymenium Cagnii* は，ヒョウタンゴケ科の，日本でも本州南部，九州，琉球に産する *Entosthodon Wichurae* にほかならない。ニューギニア産の5種は，すべて，より古くから知られている種の異名となる。そのうちの1種ツヤマゴケ (*Bryum nitens*) は旧世界種かと思っていたのに，南アメリカに，より古い *Bryum apiculatum* という先行名があることがわかった。また，シシリー島産の標本をみることによって，古くからいわれていた *Bryum cellulare* が地中海東部地域に産する事実を筆者自身で確かめることができた。